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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/859,608	05/17/2001	Pankaj B. Patel		4992

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EXAMINER

KHOSHNOODI, NADIA

ART UNIT PAPER NUMBER

2137

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/859,608	PATEL, PANKAJ B.	
	Examiner	Art Unit	
	Nadia Khoshnoodi	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6-8,10 and 11 is/are pending in the application.
- 4a) Of the above claim(s) 2-5 & 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6-8,10 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

Claims 2-5 and 9 have been cancelled. Applicant's arguments/amendments with respect to amended claims 1 & 6-8 and newly presented claims 10-11 filed 10/26/2005 have been fully considered and therefore the claims are rejected under new grounds.

Claim Objections

Claim 7 is objected to because of the following informalities: the last two lines of the claims recite, "when there is no match occurs between the first..." Examiner suggests amending the limitation to either read as "there is no match" or "no match occurs. Appropriate correction is required.

Claim Rejections - 35 USC § 103

I. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

II. Claims 1, 6, 8, and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bianco et al., US Patent No. 6,256,737, and further in view of Park et al., US Pub. No. 2002/0073322.

As per claims 1 and 11:

Bianco substantially teaches a method/system for authenticating a user over a network, comprising the steps of providing an identification box at the local site of the user, and providing

a central server at a remote site, with the identification box including a biometric reader, and with the identification box and the central server being connected over the network (col. 12, lines 12-22); confirming the identity of the user to the central server, using the identification box (fig. 8A, elements 802 and 804); measuring a first biometric parameter from the user with the biometric reader, and storing the first biometric parameter in encrypted form at the identification box (col. 8, lines 1-40) and at the central server (col. 10, lines 1-27); sending a user request for authentication from the identification box to the central server (fig. 8A, elements 802, 804, and 806); measuring a second biometric parameter from the user with the biometric reader; encrypting the second biometric parameter (col. 8, lines 16-17); comparing, at the identification box, the second encrypted biometric parameter with the previously-stored first encrypted biometric parameter (col. 26, lines 8-33).

Not explicitly disclosed is sending a unique math table and a random number from the central server to the identification box, with the unique math table being stored at both the central server and the identification box; operating on the random number, at the identification box, with the unique math table to create a first cryptogram when a positive match occurs between the first and second encrypted biometric parameters; and sending the first cryptogram from the identification box to the central server. However, Park et al. teach that the central server sends a random number and table to the client computer who uses that information to create another random number that is then encrypted and sent back to the server. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method/system disclosed in Bianco et al. for the server to send the unique table and random number to the client's identification box at the client terminal and use that information for

Art Unit: 2137

creating a first cryptogram. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Park et al. suggest that these techniques can be used in a system in order for the server to achieve robustness against an attack in paragraphs 38-39 and 42-50.

Finally not explicitly disclosed is operating on the random number, at the central server, with the unique math table to create a second cryptogram and comparing, at the central server, the first cryptogram with the second cryptogram; and confirming the authenticity of the user when a positive match occurs between the first cryptogram and the second cryptogram.

However, Park et al. teach that the server uses the stored table and the random number to recalculate a second cryptogram and compares that with the first cryptogram, thereby confirming the authenticity of the user when a positive match occurs between the two cryptograms.

Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method/system disclosed in Bianco et al. for the server to calculate a second cryptogram and compare that to the first cryptogram transmitted by the client terminal allowing the server to authenticate the user when a positive match results. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Park et al. suggest that these techniques can be added to a system in order for the server to achieve robustness against an attack in paragraphs 38-39 and 51-53.

As per claim 6:

Bianco et al. and Park et al. substantially teach the method as in claim 1. Furthermore, Park et al. teach the method further comprising the step of allowing the user access to a second

remote site if the first cryptogram matches the second cryptogram (par. 53).

As per claim 7:

Bianco substantially teaches a method for authenticating a user over a network, comprising the steps of providing an identification box at the local site of the user, and providing a central server at a remote site, with the identification box including a biometric reader, and with the identification box and the central server being connected over the network (col. 12, lines 12-22); confirming the identity of the user to the central server, using the identification box (fig. 8A, elements 802 and 804); measuring a first biometric parameter from the user with the biometric reader, and storing the first biometric parameter in encrypted form at the identification box (col. 8, lines 1-40) and at the central server (col. 10, lines 1-27); sending a user request for authentication from the identification box to the central server (fig. 8A, elements 802, 804, and 806); measuring a second biometric parameter from the user with the biometric reader; encrypting the second biometric parameter (col. 8, lines 16-17); comparing, at the identification box, the second encrypted biometric parameter with the previously-stored first encrypted biometric parameter (col. 26, lines 8-33).

Not explicitly disclosed is sending a unique math table and a random number from the central server to the identification box, with the unique math table being stored at both the central server and the identification box; generating, at the identification box a second random number when the first encrypted biometric parameter does not positively match the second encrypted biometric parameter; operating on the random number, at the identification box, with the unique math table to create a first cryptogram when a positive match fails to occur between the first and second encrypted biometric parameters; and sending the first cryptogram from the

identification box to the central server. However, Park et al. teach that the central server sends a random number and table to the client computer who uses that information to create a second random number that is then encrypted and sent back to the server. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Bianco et al. for the server to send the unique table and random number to the client's identification box at the client terminal and use that information for creating a first cryptogram. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Park et al. suggest that these techniques can be used in a system in order for the server to achieve robustness against an attack in paragraphs 38-39 and 42-50.

Finally not explicitly disclosed is operating on the random number, at the central server, with the unique math table to create a second cryptogram and comparing, at the central server, the first cryptogram with the second cryptogram; and denying the authenticity of the user when there is no match between the first cryptogram and the second cryptogram. However, Park et al. teach that the server uses the stored table and the random number to recalculate a second cryptogram and compares that with the first cryptogram, thereby confirming the authenticity of the user when a positive match occurs between the two cryptograms. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Bianco et al. for the server to calculate a second cryptogram and compare that to the first cryptogram transmitted by the client terminal allowing the server to deny the authenticity of the user when a positive match results. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been

Art Unit: 2137

motivated to do so since Park et al. suggest that these techniques can be added to a system in order for the server to achieve robustness against an attack in paragraphs 38-39, 51, and 54.

As per claim 8:

Bianco et al. and Park et al. substantially teach the method as in claim 7. Furthermore, Park et al. teach the method further comprising the step of denying the user access to a second remote site if the first cryptogram does not match the second cryptogram (par. 53).

As per claim 10:

Bianco et al. and Park et al. substantially teach the method according to claim 1. Bianco et al. further teach providing a second identification box at a second remote site, with the second identification box including a second biometric reader, and with the second identification box and the central server being connected over the network (col. 12, lines 12-22); and sending a user request for authentication from the second identification box to the central server (fig. 8A, elements 802, 804, and 806).

Not explicitly disclosed is the method further comprising: measuring a third biometric parameter from the user with the second biometric reader; encrypting the third biometric parameter; and comparing, at the second identification box, the third encrypted biometric parameter with the first encrypted biometric parameter. However, Bianco et al. teach measuring a first biometric parameter from the user with a first biometric reader, and storing the first biometric parameter in encrypted form at the first identification box (col. 8, lines 1-40) and at the central server (col. 10, lines 1-27); measuring a second biometric parameter from the user with the biometric reader; encrypting the second biometric parameter (col. 8, lines 16-17); comparing, at the first identification box, the second encrypted biometric parameter with the previously-

stored first encrypted biometric parameter (col. 26, lines 8-33). Furthermore, Bianco et al. teach that there are several identification boxes. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Bianco et al. to measure and compare the first biometric parameter with the third biometric parameter which is merely another biometric sample from a different identification box. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Bianco et al. suggest that there exist more than one identification box in a system, as well as more than one attempt to gain access, in col. 12, lines 11-45.

Also not explicitly disclosed is sending the unique math table and the first encrypted biometric parameter from the central server to the second identification box; sending a second random number from the central server to the second identification box; operating on the second random number, at the second identification box, with the unique math table to create a third cryptogram when a positive match occurs between the first and the third encrypted biometric parameters. However, Park et al. teach that the central server sends a second random number and table to the second client computer who uses that information to create another random number that is then encrypted and sent back to the server. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Bianco et al. for the server to send the unique table and second random number to the client's second identification box at the client terminal and use that information for creating a third cryptogram. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Park et al. suggest

Art Unit: 2137

that these techniques can be used in a system in order for the server to achieve robustness against an attack in paragraphs 38-39 and 42-50.

Finally not explicitly disclosed is operating on the second random number, at the central server, with the unique math table to create a fourth cryptogram; sending a third cryptogram from the second identification box to the central server; comparing, at the central server, the third cryptogram with the fourth cryptogram; and confirming the authenticity of the user when a positive match occurs between the third cryptogram and the fourth cryptogram. However, Park et al. teach that the server uses the stored table and the random number to recalculate a fourth cryptogram and compares that with the third cryptogram sent by the second identification box, thereby confirming the authenticity of the user when a positive match occurs between the two cryptograms. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Bianco et al. for the server to calculate a fourth cryptogram and compare that to the third cryptogram transmitted by the second client terminal allowing the server to confirm the authenticity of the user when a positive match occurs between the third cryptogram and the fourth cryptogram. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Park et al. suggest that these techniques can be added to a system in order for the server to achieve robustness against an attack in paragraphs 38-39, and 51-53.

Art Unit: 2137

**References Cited, Not Used*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent No. 6,002,769 has been cited because it is relevant due to the manner in which the invention has been claimed.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadia Khoshnoodi whose telephone number is (571) 272-3825. The examiner can normally be reached on M-F: 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


EMMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER


Nadia Khoshnoodi
Examiner
Art Unit 2137
1/18/2006

NK